

SI ERC, W

Remarks on problems of organizational
activity in enterprises. p. 32.
TOBBTERMELES. (Uzemi Tervgazdasagi es
Szervezesi Tudomanyos Egyesulet)
Budapest.
Vol. 10, no. 5, May 1956.

SOURCES: EEAL - LC Oct. 1956. Vol. 5 No. 10

SPIRO, N.

New regulations for carrying out the terms of local budgets.
Fin.SSSR 16 no.10:76-78 0 '55. (MLRA 9:2)
(Moscow Province--Finance)

VORONOV P.S., kand.geologo-mineralogicheskikh nauk; SERCO, N.S.,
kand.khimicheskikh nauk

Distribution of oxides and hydroxides in Quaternary sediments on
the coast of eastern Antarctica. Inform biul.Sov.antark.eksp.
no.44:5-16 '63. (MIRA 17:4)

1. Nauchno-issledovatel'skiy institut geologii Arktiki.

17

VARIAZIONI DEL COEFFICIENTE DI CARBONAZIONE
 Variations in the carbonation coefficient of sea water.
 P. T. Danilchenko and N. S. Spiro. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat.* 1955-1439-58.—Carbonation coeff. ($\text{HCO}_3^- \times 100/\text{Cl}^- = K$) is 1250 for av. river water and 0.15-0.72 for water from ocean or salt lakes. It is inversely proportional to salinity (S = total content of salts). The av. HCO_3^- content of fresh and sea waters is 0.0140% and 0.0148%, resp., and that of salt lakes is 0.0173%. For saline waters in direct contact with CaCO_3 and atm. CO_2 , $K/S = C = \text{const.}$ (av. $C = 3.0$, but varies from 5.1 for Caspian Sea to 1.7 for the Gulf of Kuyal'nitskii and is 2.8 for ocean waters). All natural waters are usually satd. with respect to CaCO_3 , but occasionally they may contain an excess (Black and Caspian seas) or a deficient quantity (Baltic Sea) of it. The CaCO_3 in oceans is supplied both by rivers and by the minerals present in the ocean bed. On evapn. ocean waters deposit CaCO_3 and a mixt. of MgCO_3 and CaCO_3 ; this must result in migration of CaCO_3 from the poles toward the equator where evapn. is more rapid.

V. A. Kalichevsky

CA

18

Magnesium hydride. A. A. Shikin and N. S. Spiro.
Russ. 51,980, Nov. 30, 1937. A soln. of the Mg salt is
treated with lime in the presence of tanning ext. to ac-
celerate the settling, filtration and washing of the $Mg(OH)_2$.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

1ST AND 2ND ORDERS

PROCESS AND PROPERTIES INDEX

12

Problems of the magnesium salts. N. S. Spiro. *Byull. Inst. Khim. 1938, No. 1, 28-46; Khim. Referat. Zhur. 2, No. 3, 98(1939).*—Salt lakes are the purest, cheapest and most abundant sources of Mg. The solns. of Mg salts were electrolyzed, with diffusion diaphragms; a good yield was obtained, especially with a cathode, c. d. of 0.004-0.03 amp./sq. cm. A yield of 90-95% was obtained from the electrolysis of solns. contg. NaCl and MgSO₄. The ppt. contained fairly pure Mg(OH)₂, with admixts. of Mg(OH)Cl. A cycle was developed for the pptn. of Mg from solns. by means of NaOH, which was prepd. by electrolysis of NaCl and Na₂SO₄ from the solns. after the pptn. of Mg. In electrolysis of astrakanite contg. 150 g./l. of H₂SO₄, about 3.5-4.5 kw.-hrs. per kg. of Mg(OH)₂ was used. The method of extrn. of Mg(OH)₂ from sea water according to (Ba, Ca)S + MgCl₂ + 2H₂O = (Ba, Ca)Cl₂ + Mg(OH)₂ + H₂S was investigated, and the method for obtaining MgO by liming was studied. Pptn. and filtration are facilitated by addn. of fine, un-slaked lime, or by coagulation. The tanning exts. are good coagulants. W. R. Henn.

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

330MI STRIATION

330MI BOMIUV

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1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																										COMMON VARIABLE INDEX																									
<p>18</p> <p>A complete utilization of sea salt. N. S. Spira. <i>Bull. Inst. Khim. 1938, No. 3, 21-30; Khim. Referat. Zhur. 2, No. 3, 96(1939).</i>—The climatic conditions, transportation facilities and proximity of the Azov Sea are factors which permit a complete utilization of the strong salt solns. of waters found in Sivash for the production of NaCl, Br, MgO and its deriva. (carbonates, Sorel cement, etc.), MgSO, and Na₂SO. The technological scheme for the pptn. of Mg with lime is described. W. R. Henn</p>																																																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																																																			

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>18</p> <p>Magnesium salt deposits. N. S. Spirin. <i>Byull. Inst. Halurgii</i> 1939, No. 3, 27-34; <i>Russk. Referat. Zhur.</i> 1939, No. 6, 88-9; cf. C. A. 34, 850P. —The production of MgO from brines is based on the pptn. of $Mg(OH)_2$ by an addn. of CaO. The colloidal structure of the brine hinders to a great extent its washing and filtering. A method has been developed for solns. with a small Mg content, which avoids the formation of colloidal ppts. A no. of expts. showed that the semifinished products and the salt complexes can be utilized for the production of Soviet type cement, fertilizer mixt., etc. The MgO obtained from brines can be used in metallurgical refractories. $Mg(OH)_2$ can be used to replace alkali in the petroleum industry, used as raw material for construction purposes and for the production of the gypsum-Mg cement. Active MgO can be used in the petroleum industry to replace the bleaching earths, because it surpasses them in its properties. $MgSO_4$ can be used for the production of fertilizers, metallic Mg, etc.</p> <p style="text-align: right;">W. R. Henn</p>																																																			
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COMMON ELEMENTS										COMMON VARIANTS									
MATERIALS INDEX										PROCESS AND PROPERTIES INDEX									
<p>C MAGNESIUM OXIDE FROM NATURAL BRINES. N. S. Spiro. Chemistry. 11 [6] 35-37 (1946). -- The chief technological task in obtaining magnesium hydroxide is to create conditions that will favor the precipitation of a coarse-grained product easy to filter and wash. In the case of concentrated brines (20% $MgCl_2$ and higher), precipitation was conducted with finely powdered unslaked lime; for brines of low concentrations, the unslaked lime did not produce precipitates of the desired structure and it was necessary to add coagulating agents (fir tanning extract). To obtain a precipitate having a structure that will make it possible to use ordinary filtration equipment, the "growth" method of precipitation was developed. The magnesium is precipitated by the addition of less than an equivalent amount of milk of lime. The solution is kept in settling tanks to form a pulp of $Mg(OH)_2$; the supernatant liquid is then withdrawn, more brine is added to the pulp, and precipitation is repeated with more milk of lime. By repeated</p>																			
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117 AND 118 ENGINE										119 AND 120 ENGINE									
PROCEDURES AND PROPERTIES INDEX																			
<p>2</p> <p>LAWS OF CHANGE OF THE SOLUBILITY. I. Eutectic points of polytherms in multicomponent systems. R. I. Akhmanov and N. N. Popov. <i>Zhur. Obshchei Khim.</i> (J. Gen. Chem.) 18, 703-801 (1948).—The concept of conventional pressure is presented. It is the pressure that a given solute alone would exert when present in a multicomponent system. The conventional pressure of any component increases exponentially with the temp. Both total and individual solubilities also increase exponentially with temp. By use of data for the system NaCl-KCl-H₂O, the logs of the solubilities of each component in a multicomponent system are shown to be proportional to one another. A. J. M.</p>																			
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Laws of solubility changes. II. Energy character-
ization of eutectic points of polytherms in multicomponent
systems. E. I. Akhmedov and N. S. Spiro. *Zhur.*
(Zhurnal Khim. 10, No. 1, 17-23 (1969); Engl. Chem.
U.S.S.R. 10, 18-27 (1969) (English translation); cf.
C.A. 43, 1969b.—In considering deviations from ideality
in real solns., the quantity ϕ is introduced, defined by the
relation $\phi = K_0/K_0^0$, where K_0 is the equl. const. in terms
of concn. and K_0^0 in terms of activities. ϕ is then a measure
of the non-ideality of the soln., and its evaluation in-
volves the knowledge of activity coeffs. It is closely re-
lated to the free energy change in the system, since $\Delta F =$
 $|\Delta F_0 - \Delta F_0^0| = -RT \ln \phi$. A plot of $\log \phi$ against $1/T$
results in a straight line. Various data are analyzed using
the quantities mentioned above. III. Energy characteriza-
tion of isotherms in multicomponent systems. *Zhur.*
(Zhurnal Khim. (J. Gen. Chem.) 30, 201-7 (1956)).—
Theoretical equations are derived on the basis of the "re-
duced equation const.," previously defined as $\phi = K_0/K_0^0$,
and they are applied to data from various sources for the
systems NaCl-KCl-H₂O and NaCl-MgCl₂-H₂O (cf. C.A.
27, 2871). In a 2-component system, a soln. that is
unsatd. with respect to one component with respect to which
no a new solvent for the component with respect to which
the soln. is satd. In such a system, if the concn. of one
component is held const., the actv. of the other component
varies exponentially with the temp. At const. temp.,
 $\log \phi$, and hence ΔF , are proportional to the logarithm of
the concn. of the component with respect to which the soln.
is satd. Arieh I. Miller

SPIRO, N. S.

32354

SPIRO, N. S. Zavisimost' Svoystv Atomov i ikh Soyedinyeniy ot Elyektronnoy S'truktury.
Trudy Vsesoyuz. Nauchno-Issled. in-ta Galurgii VYP. 21, 1949, s. 262-335

SO: Letopis' Zhurnal'nykh Statey, Vol. 44

SPIRC, N. 3.

Akhumov, E. I. & Spiro, N. S. - "Law of change of solubility. III. Energetic characterisation of the isotherms in multi-component systems." (p. 201)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 2.

CA

2

Laws of changes of solubility. IV. Solubility equation for the isotherm in multicomponent systems. E. I. Akhumov and N. S. Spiro. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 46-51(1951); cf. C.A. 44, 9215b.—An equation for the isotherm in multicomponent systems is rigorously derived by making use of the reduced equil. const. which was introduced in the previous paper. The equation can be solved algebraically only when it is not higher than 4th order; however, graphic methods give results of desired accuracy. Application of the equation to data from the literature for the system NaCl-KCl-H₂O gave values which were in good agreement with exper. data. V. Raoult's law. *Ibid.* 51-8.—Raoult's coeff. is expressed as the reduction of the pressure of the satd. vapor of the solvent over a soln. per unit pressure. At const. temp. and within broad concn. limits (up to satn.), Raoult's coeff. changes linearly with concn., and the slope of the curve depends on the chem. nature of the (dissolved) material. In unsatd. solns. having const. concn., Raoult's coeff. changes exponentially with respect to temp., and in satd. solns. the same is true. Data are given for the following systems and Raoult's coeff. is calcul. therefrom: C₆H₆O₆-H₂O (0-70°), KCl-H₂O (20-100°), MgCl₂-H₂O (0-116°), and NaNO₃-H₂O (0-125°).

Paul W. Howerton

1251

PILO, H. S.

"Law of change of solubility. V. Raoult's law." E. I. Akhmedov and H. S. Spiro.
(p.51)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Volume 21,
No. 1

SPIRO, N.S.

Chemical Abst.
Vol. 48 No. 6
Mar. 25, 1954
General and Physical Chemistry

(2) 3
The laws of change of solubility. VI. Raoult's law.
E. I. Akhmedov and N. S. Spiro. *J. Gen. Chem. U.S.S.R.*
22, 801-3 (1952) (Engl. translation).—See C.A. 47, 5767c.
H. L. H.
11-5-54

AKHUMOV, Ye.I.; SPIRO, N.S.

Use of the logarithmic curves of solubility in multicomponent systems. Izv.Sekt.fiz.-khim.anal. 23:22-33 '53. (MLRA 7:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut galurgii.
(Solubility) (Curves, Logarithmic)
(Systems (Chemistry))

SPIRO N.S.

USSR:

Activity and the activity coefficient of water in binary solutions. E. I. Akhmedov and N. S. Spiro. *Zhur. Fiz. Khim.* 47, 668-72 (1973); cf. *C. R. Acad. Sci. Paris* 27, 57076. By use of rules developed earlier for the Raoult coeff., empirical formulas are derived for the changes in the activity of H_2O in binary solns. for various solns. having the same concn., isotherms, and polytherms. J. Rovtar Leach.

SP1Ry N 3

USSR.

✓ The relation between the concentrations for isosolvent
aqueous two-component systems. B. I. Akhmedov and N.
S. Solov. Doklady Akad. Nauk S.S.S.R. 91, 873-8 (1983).

The properties of aq. 2-component systems that are iso-
solute with respect to the solvent are studied. An equation
is derived showing that a linear relation exists between the
inverse values of the concns. of the different 2-component
systems at const. temp. This relation is illustrated by data
on the systems HCl, NaOH, NaNO₃, Na₂CO₃, MgCl₂, Ca-
Cl₂, and MgSO₄ in water. J. Rovnar Leach

1163

Spiro, N.S.

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②

Genetic classification of natural waters. N. S. Spiro, I. S. Gramberg, and Ts. L. Vovk. *Doklady Akad. Nauk S.S.S.R.* 93, 531-4 (1953).—For the graphic projection of the chem. compn. of natural waters the same method was used which had previously been used by Kashkarov (cf. *C.A.* 34, 1136²) and Valyashko (*Trudy Vsesoyuz. Nauch. Issledovatel. Inst. Galurgii* 23, 13 (1952)) for salt lake brines. The projection is given by a rectangular triangle with the mols. $[\text{Na}_2\text{CO}_3 + \text{Na}_2(\text{HCO}_3)_2]$, MgSO_4 , CaCl_2 in the apexes, and the mols. Na_2Cl , Na_2SO_4 , MgCl_2 in the middle of the sides. This graph includes the system $[\text{Na}_2\text{CO}_3 + \text{Na}_2(\text{HCO}_3)_2] - \text{Na}_2\text{Cl} - \text{Na}_2\text{SO}_4 - \text{H}_2\text{O}$; the reciprocal system $(\text{Na}^{++}, \text{Mg}^{++}) - (\text{Cl}^{--}, \text{SO}_4^{--}) - \text{H}_2\text{O}$; and $\text{Na}_2\text{Cl} - \text{CaCl}_2 - \text{MgCl}_2 - \text{H}_2\text{O}$. Very characteristic is the projection of the analyses of ocean water, that from the Black Sea, the Dead Sea, the anomalous chloride waters of the Rivers Amu-Darya and Syr-Darya in Central Asia, the positions of the points for petroleum-brine waters along the side $[\text{Na}_2\text{CO}_3 + \text{Na}_2(\text{HCO}_3)_2] - \text{Na}_2\text{Cl} - \text{CaCl}_2$. Further, the diagram shows the "degeneration" of sea water in the Caspian Sea and Lake Aral by the inflow of river water. A second projection shows the compn. of salts from the Black Sea and some Asian lakes and soils, with a strong enrichment in MgSO_4 . W. Bitel

Spiro, N.S.

3
✓ Solubility of chlorides in hydrochloric acid. E. I.
Akimov and N. S. Spiro. J. Appl. Chem. U.S.S.R. 27.
1964-2 (1964) (Engl. translation). See C.A. 49: 7932d. ①
B. M. R.

U S S R .

Solubility of chlorides in hydrochloric acid. R. I. Akh-
mov and N. S. Spiro. *Zhur. Priklad. Khim.* 27, 1103-0
(1954); cf. *C.A.* 48, 7411c. The soly. of a salt MR_n in an
aq. soln. of an acid HR is expressed by $\log \phi = a + b \log c$,
where a and b are const., c is the MR_n concn. (M), and ϕ is
the reduced equil. const. (cf. *C.A.* 44, 9216a). Available
data on the soly. of $NaCl$ (30°), $MgCl_2$ (0 and 25°), $AlCl_3$
(25°), and mixts. of $NaCl + KCl$ (25°) in aq. solns. of HCl
substantiate this relation. I. Bencowitz

Spiro, N. S.

USER/Chemistry - Physical chemistry

Card 1/1 Pub. 147 - 9/27

Authors : Akhumov, E. I., and Spiro, N. S.

Title : Equation of the state of two-component solutions

Periodical : Zhur. fiz. khim. 28/9, 1591-1598, Sep 1954

Abstract : The applicability of the van der Waals equation to two-component aqueous solutions was investigated at a wide range of temperatures and concentrations. The value of individual coefficients in the van der Waals equation, applicable to two-component aqueous solutions, was analyzed. Calculated data for two-component solutions, which confirm the possibility of applying the van der Waals equation to such two-component aqueous solutions, are presented. Certain empirical relations, based on the equation of state for solutions, were theoretically substantiated. Seven USSR references (1935-1953). Tables.

Institution : ...

Submitted : December 7, 1953

USSR/Chemistry - Physical Chemistry

Card 1/1

Authors : Akhumov, E. I., and Spiro, N. S.

Title : About the pressure curve of saturated two-component aqueous solutions

Periodical : Dokl. AN SSSR, 97, Ed. 2, 269 - 272, July 1954

Abstract : The effect of critical phenomena (temperature rise) on the pressure curve of two-component aqueous solutions of highly soluble non-volatile salts is described. The pressure rises to a certain known maximum and then decreases reaching zero at a melting temperature. This phenomenon is observed in the case of salts with melting point which is lower and also much higher than the critical temperature of water. An explanation of this interesting phenomenon is given in this report. Ten references. Tables, graphs.

Institution : The V. I. Ul'yanov Electro-technical Institute, Leningrad

Presented by : Academician I. I. Chernyaev, March 23, 1954

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 11/19

Authors : Akhumov, Ye. I. and N. S. Spiro

Title : Calculation of activity coefficients of water in two-component solutions

Periodical: Zhur. prikl. khim., 28, no.2, 205-208, 1955

Abstract : Formulas for the measurement of the activity coefficients are given. Aqueous solutions of chlorides of alkali metals and alkaline earth metals were studied at 25°C. Two tables, 4 references (all Russian: 1952-1953).

Institution: None

Submitted : 0 3, 1953

SPIRO, N.S.

USSR/Minerals - Argillaceous minerals

Card 1/1 Pub. 22 - 42/50

Authors : Spiro, N. S.; Gramberg, I. S.; and Vovk, Ts. L.

Title : ~~Changes in chemical composition of argillaceous minerals~~
Changes in chemical composition of argillaceous minerals

Periodical : Dok. AN SSSR 100/1, 159-161, Jan. 1, 1955

Abstract : Mineralogical data are presented regarding the changes occurring in the chemical composition of argillaceous (clayey) minerals. Two USSR references (1931 and 1951). Diagram.

Institution : The Arctic Scientific Research Institute of Geology

Presented by: Academician S. I. Mironov, June 3, 1954

Spino, N.S.

Carphy ✓ Composition of exchangeable bases of argillaceous rocks and its relation to environmental conditions at sedimentation. N. S. Spiro, I. S. Gramberg, and Ts. L. Vovk. Doklady Akad. Nauk S.S.S.R. 105, 800-2 (1955).—Exchangeable Na, K, and Ca + Mg were extd. quickly with NH₄Cl, after an alc. water wash to remove sol. salts. Argillaceous rocks of marine and continental origin were readily distinguished by the higher alkali content of the former. Permian Age rocks from the Arctic were similarly classified as marine or continental according to either org. residues present or exchangeable base compn. R. G. M.

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SPIRO, N.S.; GRAMBERG, I.S.; VOVK, TS.L.

Method for a comparative study of the chemical composition of terrigenous
sedimentary rocks. Trudy Nauch.-issl. inst. geol. Arkt. 86:9-112 '56.

(MIRA 10:3)

(Rocks, . Sedimentary--Analysis) (Geochemistry)

SPIRO, N.S.; BONCH-OSMOLOVSKAYA, K.S.

Composition of absorbed clay complexes in cases of equilibrium with
solutions such as sea water; experimental studies. Trudy Nauch.-issl.
inst.geol.Arkt. 86:113-133 '56. (MIRA 10:3)
(Sea water--Analysis) (Clay)

BONCH-OSMOLOVSKAYA, K.S.; SPIRO, N.S.

~~Method for obtaining extracts from argillaceous sedimentary rocks~~
Method for obtaining extracts from argillaceous sedimentary rocks
for studying compositions of readily soluble salts and the absorbed
cation complex. Trudy Nauch.-issl.inst.geol.Arkt. 86:133-160 '56.
(MIRA 10:3)

(Rocks, Sedimentary--Analysis)

SP-RO, 1/15

2

Determination of the degree of hydration of highly soluble salts in concentrated solutions. R. I. Akhmedov and N. S. Spiro. *Zhur. Neorg. Khim.* 2, 157-9 (1957). The log N_2 (where N_2 is the concn. of the salt) vs. $(1000/T - ^\circ K.)$ curves were detd. for satd. solns. of NaCl, NaBr, and KCl and were compared with the ideal curves calcd. from the heats of fusion of the pure salt. From these curves the degree of hydration was detd. The no. of mols. H_2O were 8.10, 2.82, and 4.58 for NaCl, KCl, and NaBr, resp.

J. Rovtar Leach

anf

SPIRO, N.S.; GOGOLEVA, M.V.

Determining the mineral composition of clay rocks. Trudy NIIGA
67:218-224 '58. (MIRA 12:10)
(Clay)

5(4)

AUTHORS:

Akhumov, Ye. I., Spiro, H. S.

SOV/78-4-3-31/34

TITLE:

Activity and Activity Coefficient of Water in Saturated Solutions of NaCl-H₂O, KCl-H₂O, NaBr-H₂O (Aktivnost' i koefitsiyent aktivnosti vody v nasyshchennykh rastvorakh NaCl-H₂O, KCl-H₂O, NaBr-H₂O)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 3, pp 692-694 (USSR)

ABSTRACT:

In the present paper the thermodynamic character of water was investigated in saturated two-component aqueous salt solutions in a wide temperature range. On the basis of experimental data in saturated solutions of NaCl-H₂O, KCl-H₂O, and NaBr-H₂O the activity a_1 and the activity coefficient γ_1 of water were computed in the temperature range between 0 and the melting temperature of the salts. The computations are given in table 1 and were carried out according to the formulas 4 and 5:

Card 1/2

Activity and Activity Coefficient of Water in
Saturated Solutions of $\text{NaCl-H}_2\text{O}$, $\text{KCl-H}_2\text{O}$, $\text{NaBr-H}_2\text{O}$

SOV/78-1-3-31/34

$$a_1 = \frac{P}{P_0} \quad (4) \quad \gamma_1 = \frac{a_1}{N_1} \quad (5)$$

From the data it may be seen that the activity coefficient of water decreases in the systems investigated with increasing concentration of the saturated salt solutions. The results can be used for thermodynamic computations of the salt equilibrium at higher temperatures. There are 1 table and 15 references, 12 of which are Soviet.

SUBMITTED: November 29, 1957

Card 2/2

SPIRO, N.S.

Symposium on salts of marine origin, held in the German Democratic Republic in 1958. Inform.biul.NIIGA no.14:7-8 '59. (MIRA 13:7)
(Salts)

SPIRO, N.S.

Studying the evolution of the composition of ocean waters. Inform.
biul.NIIGA no.14:59-67 '59. (MIRA 13:7)
(Sea water--Analysis)

GRAMBERG, I.S.; SPIRO, N.S.

Experience in using geochemical data for the correlation
and facies analysis of Permian sediments in the Khatanga
Depression. Trudy NIIGA 98:5-35 '59. (MIRA 13:5)
(Siberia, Eastern--Geology, Stratigraphic)
(Geochemistry)

SPIRO, N.S.; BONCH-OSMOLOVSKAYA, K.S.

Composition of adsorbed clay bases in the case of equilibrium
with different types of waters. Trudy NIIGA 98:36-62

1959

(MIRA 13:5)

(Clay--Analysis) (Water--Analysis)

SPIRO, N.S.; VOVK, TS.L.

Reconstruction of the composition of waters of the Permian
Sea. Trudy NIIGA 98:63-72 '59. (MIRA 13:5)
(Geology, Stratigraphic) (Geochemistry)

SPIRO, N.S.; GRAMBERG, I.S.

Relationship between the carbonate content of clay rocks
and the facies conditions of sediment formation. Trudy
NIIGA 98:73-76 '59. (MIRA 13:5)
(Clay--Analysis) (Sedimentation and deposition)
(Carbonates)

SPIRO, N.S.

Chemical composition of Permian clay deposits, as related to
the facies conditions of sedimentation. Trudy NIIGA 98:77-89
'59. (MIRA 13:5)

(Clay--Analysis) (Sedimentation and deposition)

SPIRO, N.S.; GRAMBERG, I.S.; VOVK, TS.L.

Use of manganese for the reconstruction of oxidation-reduction
potential during the period of sediment formation. Trudy
NIIGA 98:90-100 '59. (MIRA 13:5)
(Sedimentation and deposition)
(Oxidation-reduction reaction)

SPIRO, N.S.; DANYUSHEVSKAYA, A.I.

New method for the comparative characterization of bitumens
and petroleum, based on their luminescent and capillary
properties. Trudy NIIGA 98:106-119 '59. (MIRA 13:5)
(Bitumen--Analysis) (Petroleum--Analysis)

GRAMBERG, Igor' Sergeyevich; SPIRO, Nikolay Semenovich; APLONOVA,
Evalina Nikolayevna; SAKS, V.N., nauchnyy red.; DESHALYT, M.G.,
vaduushchiy red.; GERNAD'YEVA, I.M., tekhn.red.

[Stratigraphy and lithology of Permian sediments in the northern
part of the Khatanga Depression in connection with its oil
potential] Stratigrafiia i litologiya permskikh otlozhenii
severnoi chasti Khatangskoi vpadiny v svyazi s problemoi naftosno-
sti. Leningrad. Gos.nauchn.-tekhn.isd-vo neft.i gorno-toplivnoi
lit-ry, Leningr.otd-nie, 1960. 172p. (Leningrad Nauchno-issledovatel'-
skii institut geologii Arktiki. Trudy, vol.71) (MIRA 13:2)
(Khatanga region--Petroleum geology)

GRAMBERG, I.S.; SPIRO, N.S.; APLONOVA, E.N.; SAKS, V.N., nauchnyy red.;
RUSAKOVA, L.Ya., vedushchiy red.; ZHIKHAREVA, M.Ya., tekhn.red.

{Stratigraphy and lithology of Permian and Triassic sediments
in the northern part of the Verkhoyansk trough and adjoining
folded structures} Stratigrafiia i litologiya permskikh i
triasovykh otlozhenii severnoi chasti Priverkholianskogo progiba
i sopredel'nykh skladchatykh sooruzhenii. Leningrad, Gos.nauchno-
tekhn.izd-vo nefi i gorno-toplivnoi lit-ry, Leningr.otd-nis., 1961.
231 p. (Leningrad. Nauchno-issledovatel'skii institut geologii
Arktiki. Trudy, vol.118) (MIRA 14:11)

1. Chlen-korrespondent AN SSSR (for Saks)
(Verkhoyansk Range—Geology, Stratigraphic)

SPIRO, N.S.; GRAMBERG, I.S.

Composition of the adsorbed complex of argillaceous rocks as indicator of the conditions prevailing during the early stage of sediment formation. Geol. i geofiz. no.9:30-34 '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy institut geologii Arktiki, Leningrad.
(Geochemistry) (Clay) (Adsorption)

SPIRO, N.S. (Leningrad)

Calculating the cosolubility of salts. Zhur.fiz.khim. 35 no.10:14-15
2363-2369 0 '61. (MIRA 14:11)
(Salts) (Solubility)

S/081/61/000/022/012/076
B102/B108

AUTHORS: Spiro, N. S., Danyushevskaya, A. I.

TITLE: Development of a new method of evaluating luminescence

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 71, abstract
22B510 (Tr. N.-i. in-ta geol. Arktiki, v. 119, 1961, 109-127)

TEXT: The luminescence chromatographs of the fractions of 5 samples of bitumens and coals of Soviet Arctic regions are given. Elution chromatographic methods were used to separate the hydrocarbon and tar fractions from the bitumens. For all the fractions elemental composition, molecular weight, refractive index and, by empirical calculations, the homologous series were determined. The relationships between the adsorption parameters and the molecular weight, the molecular structure, and the chemical composition of the fractions are dealt with. [Abstracter's note: Complete translation.] ✓

Card 1/1

SPIRO, N.S.

Relation between concentration and pressure in saturated aqueous
salt solutions. Zhur.fiz.khim. 36 no.10:2256-2261 0 '62.
(MIRA 17:4)

SPIRO, N.S.; DANYUSHEVSKAYA, A.I.

New method for the quantitative determination of bitumen in rocks.
Neftegaz. geol. i geofiz. no.10:38-41 '63. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut geologii Arktiki.

GRAMBERG, G.S.; SPIRO, U.S.

Reconstruction of the hydrochemical conditions of ancient sea
basins based on geochemical indications. Metod. paleogeog. issl.
no. 1:6-15 '64. (MIRA 18:6)

SPIRO, N.S.; AVERINA, M.S.

Chemical composition and properties of coals in the Aldano-
Chul'man region of the South-Yakutsk Basin. Uch. zap. NIIGA.
Reg. geol. no.4:150-166 '64. (MIRA 18:12)

SPIRO, N.S.; DANYUSHEVSKAYA, A.I.

Change of the composition of disseminated bitumens in the
sedimentary rocks of the Arctic in various geological epochs.
Uch. zap. NIIGA. Reg. geol. no.4:212-218 '64.

(MIRA 18:12)

VORONOV, P.S.; SPIRO, N.S.

Composition of the absorbed cations of loose Quaternary terrigene
sediments in the central and western sectors of western Antarctica.
Probl.Arkt.i Antarkt. no.15:5-10 '64. (MIRA 17:4)

VORONOV, P.S., kand.geol.-mineral.nauk; SPIRO, N.S., kand.khim.nauk

Changes in the carbonate-hydroxide ratio in loose Quaternary deposits in the central and western sectors of eastern Antarctica. Inform. biul. Sov. antark. eksp. no.45:9-13 '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy institut geologii Arktiki.

GRAMBERG, D. .; SPIRO, N.S.; POPOV, Yu.N., red.; PETROVA, Ye.M., red.

[Paleohydrogeochemistry of the northern part of Central Siberia
in the Late Paleozoic and Mesozoic.] Paleogidrokhimia severa
Srednei Sibiri v pozdnem paleozoe i mezozoe. Moskva, Nedra,
1965. 119 p. (Leningrad. Nauchno-issledovatel'skii institut
geologii Arktiki. Trudy, vol. 142).

(MIRA 18:8)

SPIRO, N.S.; DANYUSHEVSKAYA, A.I.

Development of a new method for correlating bituminous substances based on their physicochemical characteristics. Neftgaz.geol. i geofiz. no.7:37-40 '65. (MIRA 18:8)

1. Nauchno-issledovatel'skiy institut geologii Arktiki, Leningrad.

VORONOV, P.S.; SPIRO, N.S.

Composition of readily soluble salts in loose Quaternary
terrigenous deposits of the central and western sectors of
East Antarctica. Probl. Arkt. i Antarkt. no.19:10-15 '65.

(MIRA 18:5)

SPIRO, T.A.

Visean and Namurian chaetetids from the Moscow region. Paleont.-
zhur. no.4:24-28 '61. (MIRA 15:3)

1. Paleontologicheskii institut AN SSSR.
(Moscow region--Chaetetidae)

SPIRO, V.Ye., kand. tekhn. nauk

Evaluation of elastic-plastic deformations of elongated rectangular
plates during compound bending. Sudostroenie 30 no.11:24-28
N '64. (MIRA 18:3)

SPIRO, V.Ye.; kand. tekhn. nauk

Conference on the structural strength and safety of a ship's
hull. Sudostroenie 30 no.12:70 D '64. (MIRA 18:6)

1. Chlen byuro seksii prochnosti i konstruksii korpusa
TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva
sudostroitel'noy promyshlennosti imeni akademika Krylova.

L 10309-66 EWT(m)/EWP(1)/T/ETC(m) WW/RM
ACC NR: AP5026285 SOURCE CODE: UR/0229/65/000/009/0065/0065

AUTHOR: Spiro, V. Ye.

ORG: none

TITLE: Scientific-technical conference on the structural mechanics of ships
/Leningrad, 18-19 July, 1965/

SOURCE: Sudostroyeniye, no. 9, 1965, 65

TOPIC TAGS: commerce, transportation, fleet, structural strength, shipbuilding

ABSTRACT: A brief report is given on the second Scientific-Technical Conference dedicated to the structural mechanics of ships. The conference was held in Leningrad on 18 and 19 July, 1965. It was attended by over 200 conferees from universities, scientific research institutes, the shipbuilding industry, and construction bureaus. Sixty reports were presented at the conference, which was divided into four sections: 1) structural strength, plasticity, and creep; 2) statics of plates and shells; 3) general question of ship structural mechanics; and 4) dynamics of ship construction. Basing its decisions upon the papers and discussions presented, the conferees recommended the following measures: a) a continuation of study of the internal forces acting on a ship in conditions of irregular wave action, leading to solution of reliability problems and durability of ship hull structures; b) organization of a joint effort of the structural mechanics and maritime quality group for coordinating

Card 1/2

UDC: 629.12:624.02.09(063)

Card 2/2

PETERA, V.; BOBEK, K.; LAHN, V.; technicka spoluprace SPIROCHOVA, J.

Activity of SGOT, SGPT and lactic dehydrogenase in therapy.
Cesk. gastroent. vyz. 15 no.4:241-246 Je '61.

1. Klinika chorob vnitrnich v Pizni, prednosta prof. dr. K.Bobek.
(TRANSAMINASES blood) (LACTIC DEHYDROGENASE blood)
(TESTOSTERONE rel cpds)

TSOCHEV, Minko; CHAUSHEVA, Elka; SPIROV, Blagoi; KEVORKIAN, Agop, inzh.;
RASHEEV, Velcho, inzh.

Studies on the setting up of correlation between separate
branches of textile industries up to 1890. Tekstilna prom 11
no.6:22 '62.

TSOCHEV, Minko; CHAUSHEVA, Elka; SPIROV, Blagoi; KEVORKIAN, Agop,
inzh.; RASHEEV, Velcho, inzh.

Studies for determining correlation in the development of
basic branches in textile industry. Trud Inst tekstil prom
4:191-205 '63.

SPINOV, G.

"Fire Prevention in Coal Mines", P. 24, (MINNO DELO, Vol. 9, No. 4, April 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No.1, Jan. 1955, Uncl.

3:1007, .

Fight against accidents in the mining industry. p. 23

MINNO DELO. Vol. 10, No. 6, Nov./Dec. 1955

Sofiya, Bulgaria

So. East European Accessions List

Vol. 5, No. 9

September, 1956

SPIROV, G.

A case of podophyllin poisoning. Suvr. med. 13 no.367-68 '62.

1. Iz Gradskata bolnitsa - Isperikh (Glaven lekar Milev).
(PODPHYLLUM) (CENTRAL NERVOUS SYSTEM DISEASES)
(LIVER DISEASES) (PAPILLEDEMA)
(EYE MANIFESTATIONS)

SPIROV, G.

Fungistatic and fungicide properties of some chemical compounds and preparations against the agents causing epidermophytosis, *Trichophyton gyrseum*, and *Aspergillus niger*. Dermatovener. Sofia 3 no.2:109-112 '64.

1. City General Hospital, Isperikh (Chief Physician: Milev, M., [d-r]).

L 33507-66

ACC NR: AP6023498

SOURCE CODE: BU/0016/65/000/007/0405/0408

AUTHOR: Kiryakov, I.; Bonev, A.; Spirov, G.

ORG: Institute for Scientific Research in Dermatology and Venereology/headed by Prof. P. Popkhrystov/ (Nachroizsledovatel'ski kozhno-venerologichen institut)

TITLE: Some aspects of the epidemiology of lues

SOURCE: Suvremenna meditsina, no. 7, 1965, 405-408

TOPIC TAGS: epidemiology, nervous system disease, genitourinary system disease, infective disease, man

ABSTRACT: In one group, up to 65% of male syphilitic patients had contracted the infection during homosexual relationships; analysis of 154 homosexual men: ages (80 were below 25 years old) 69 'true' and 85 'occasional' or 'opportunistic' homosexuals; lues was diagnosed in 57 (37%) mostly with 'atypical' (i.e. anal, etc.) lesions. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: 00Mar65 / ORIG REF: 002 / OTH REF: 015

Card 1/1

VASIL'KOV, G.V.; SPIROV, G.A.; DZHANOV, A.; SENNIKOV, M.I.;
SELYUCHENKO, A.; DEKANOV, I.; RAKHMATULLIN, M.G.; EYSMONT, V.V.;
KOSOVER, S.I.; TSUVERKALOV, D.A.; LESHKOV, B.G.

Information and brief news. Veterinariia 38 no.9:90-96
S '61. (MIRA 16:8)

SPIROV, G. A. (Chief Veterinary Surgeon) and YEFIMOV, V. A. (Chief Veterinary Sanitation Inspector Veterinary Department of the Ministry of Agriculture of the RSFSR)

"For the strengthening of measures in the zoonoses control"

Veterinariya, vol. 39, no. 5, May 1962 p. 12

SPIROV, G.A.; YEFIMOV, V.A.

For the strengthening of measures in the control of zoonoses.
Veterinariia 39 no.5:12-20 My '62 (MIRA 18:1)

1. Glavnyy veterinarnyy vrach Upravleniya veterinarii Ministerstva sel'skogo khozyaystva RSFSR (for Spirov). 2. Glavnyy veterinarno-sanitarnyy inspektor Upravleniya veterinarii Ministerstva sel'skogo khozyaystva RSFSR (for Yefimov).

SPIROV, I. A.

23T98

USSR/Radio Receivers
Tuning

Jun 1947

"A Short Wave Attachment with Band-Spread Tuning",
I. A. Spirov, 3 pp

"Radio" Vol XX, No 6

This attachment is built around a 6A8 tube and covers four bands, 19, 25, 31 and 49 meters. The most popularly used converter has been type K-416. It has proved unsatisfactory in some respects, however, and the article goes on to describe a new type of converter which is supposed to give much more satisfactory results. Well illustrated by schematic diagrams and photographic plates of the installation.

23T98

USSR / Pharmacology and Toxicology--Narcotics

V-1

Abs Jour: Ref Zhur-Biol, No 23, 1958, 107256

Author : Spirov, L. M.

Inst : Department of Legal Medicine, 1st Leningrad
Medical Institute

Title : The Influence of Decomposition on the Content
of Alcohol in the Blood and Brain

Orig Pub: Sb. tr. kafedry sudebn. med. 1-y Leningr. med.
in-t, 1958, vyp 2, 182-183

Abstract: While using the method of A. I. Grinberg for determining alcohol (A), the influence of decomposition on the content of A in the brain and in the blood of cadavers of persons subjected to legal medical examination was studied. It was established that

Card 1/3

1. SPIROV, M.
2. USSR (600)
4. Radio Operators
7. The road to mastery, Radio, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

SPIROV, P.

"Possibility of perfecting city electric lines." Vol.5, no. 5/6, May/ June 1954, p. 22.

Elektroenergiia, Sofiya

SO: Eastern European Accessions list, Vol 3, no. 11, Nov. 1954, L.C.

SPIROV, M.

Operative grounding and protecting of the neutral conductor for overhead low-tension electric lines. p. 14,

Vol. 6, no. 10, Oct. 1955

ELEKTROENERGIJA
Sofiya, Bulgaria

So: Eastern European Accession Vol. 5 No. 4 April 1956

SPIROV, M.

Electric distribution and direction of street lighting in cities. p.10.
(ELEKTROENERGIJA, Vol. 7, no. 6, June 1956, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

1956, 7.

SOPOVA, V. Technical terminology and writing a Bulgarian electrotechnic dictionary. 1. 1.

Vol. 7, no. 11, Nov. 1956

ELEKTROTEKHNIKA

TECHNOLOGY

Bulgaria

So: East European Accession, Vol. 6, No. 5, May 1957

SPIROV, M.

"Electric-power supply of the cities."

p.22 (Tekhnika, Vol. 6 ; no. 6, 1957, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

SPIROV, M.

"Technical and economical effect of wide adaption of fluorescent lighting
in Sofia."

p. 13 (Elektroenergiia) Vol. 8, no. 3, Mar. 1957
Sofia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC: Vol. 7, no. 4,
April 1958

SPEROV, M.

"Using Bulgarian lignite coal for electricpower production."

p. 11 (Elektroenergiia, Vol. 9, no. 1, 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7. no. 9,
September 1958

SPIROV, M.

"National Scientific-Technical Conference on Electrical Engineering."

p. 29 (Elektroenergiia, Vol. 9, No. 6, June 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11,
Nov. 1958

SPIROV, M.

"Meeting for exchange of experiences with Polish electrical specialists."

ELEKROENERGIJA, Sofia, Bulgaria, Vol. 9, no. 10/11, Oct./Nov. 1958.

Monthly List of East European Accessions Index (EEAI), The Library of Congress, Volume 8, no. 8, August 1959.

Unclassified

SPIROV, M.

"Selection of optimum parameters of electric-distribution lines for the cities
and big villages"

Elektroenergiia. Sofia, Bulgaria. Vol. 9, no. 12, Dec 1958

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

SPIROV, M.: KALBUROV, M.

"Model electrification of a large plain village in Bulgaria"

Elektroenergiia. Sofia, Bulgaria. Vol. 10, no. 2, Feb. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

SPIROV, M.

"Second National Scientific-Technical Conference of the Elektrotehnika
section of the Union of Scientific-Technical Associations."

ELEKTROENERGIJA, Sofia, Bulgaria, Vol. 10, no. 4, Apr. 1959.

Monthly list of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, ^{Sept.} Jun 59,
Unclas

SPIROV, Mire, inzh.; DIMITROV, Dimcho, inzh.

Present conditions and prospects of urban electric supply in
Bulgaria. Tekhnika Bulg 11 no.10:361-365 '62.

SPIROV, M., inzh.

Some problems in cabling urban electric networks. Tekh delo
502 3 7p '63.

SPIROV, Mire, inzh.

Determining basic parameters of urban electric networks.
Elektroenergiia 14 no.9: 6-10 S'63.

1
SPIROV, M., inzh.

Economic interrelations in constructing urban electric net-
works. Elektroenergiia 15 no. 2: 2-5 F '64.

1. Energoproekt.

SPIROV, M., inzh.

Basic conditions in the development of the electric-power supply
in Sofia. Elektroenergiia 15 no.4:3-7 Ap '64

SPIROV, M. S.

20075 SPIROV, M. S. Limfaticheskiye sosydy slizistoy obolochki tonkoy kishki
cheloveka. Uracheo delo, 1949, No. 6, str. 485-88.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

BESPALOVA, L.S.; SPIROV, M.S., professor, zaslužennyy deyatel' nauki, zavedu-
yushchiy.

Efferent lymph vessels of the transverse colon. Arkh.anat.gist.i embr.
30 no.3:70-77 My-Je '53. (MIRA 6:6)

1. Kafedra normal'noy anatomii Kiyevskogo ordena Trudovogo Krasnogo Zname-
ni meditsinskogo instituta. (Lymphatics) (Colon (Anatomy))

SPIROV, M.S., professor.

"General anatomy and physiology of the lymphatic system." Reviewed by M.
S. Spirov. Arkh.anat.gist.i embr. 30 no.3:78-87 My-Je '53. (MLBA 6:6)
(Lymphatics) Zhdanov, D.A.)

SPIROV, M.S.

SPIROV, M.S.; BOMASH, Yu.M., redaktor; BEL'CHIKOVA, Yu.S., tekhnicheskii
redaktor

[Guide for the laboratory preparation of human muscles, ligaments,
blood vessels, and nerves] Rukovodstvo po preparirovaniu myshts,
svyazok, sosudov i nervov cheloveka. Moskva, Gos. izd-vo med.
lit-ry, 1954. 268 p (MLRA 8:3)
(Anatomy, Human--Laboratory manuals)

SPIROV, M.; TONCHEV, G.; GEORGIEVA, R.

New tendencies in complex therapy of pulmonary tuberculosis.
Suvrem. med., Sofia 5 no.8:52-61 1954.

1. Iz Durzhavniia detski sanatorium, gr. Triavna. Gl. lekar:
I. Vuglenov.

(TUBERCULOSIS, PULMONARY, therapy)

SPIROV, M.S., professor.

"Fundamentals of topographical anatomy" D.N. Lubotskii. Reviewed
by M.S. Spirov. Arkh. anat. gist. i embr. 32 no.4:86-87 O-D '55.
(MLRA 9:5)

(ANATOMY, SURGICAL AND TOPOGRAPHICAL)
(LUBOTSKII, D.N.)

Spirov, M.S.

USSR/General Section - History, Classics, Personalities

A-2

Abs Jour : Referat Zhurn. Biol. No 16, 25 Aug 1957, 67830

Author : Spirov, M.S.

Title : The Kiev School of Anatomy and its Influence on the Development of The Natural Sciences.

Orig Pub : Vracheb. Delo, 1956, No 7, 759-762

Abstract : The founders of the Kiev school of anatomy were Professors A.P. Valter, V.A. Bets, M.A. Tikhomirov and F.A. Stefanis. Valter's work "Course in Human Anatomy" (1855) was a model handbook for his time. In 1874, Bets discovered the large pyramidal cells in the motor areas of the cerebral cortex, laid the basis for cytoarchitectonics and used evolutionary methods in studying the cerebral cortex. Bets' ideas were the basis of the architectonic studies of I.P. Mersheevskiy and had an influence on the work of the V.M. Bekhterev school. Tikhomirov investigated the problems of anatomy from the aspects of onto- and phylogenesis.

Card 1/2

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USSR/General Section - History, Classics, Personalities

A-2

Abs Jour : Referat Zhurn. Biol. No 15, 25 Aug 1957, 67830

His monograph "Arterial and venous variants in the human body" (1889) served as a reference book for anatomy and an excellent handbook for surgeons. In his dissertation "Distribution and interaction of the human cerebral artery" (1800), Tikhomirov first indicated the idea as to the identity of the blood supply of the entire brain as a whole. Stefanis wrote the classic work on the Lymphatic vessels of the abdominal cavity.

Card 2/2

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